

# LTC 8712 Series



**Security Systems**

**EN** | Instruction Manual  
Console Port  
Expanders

**BOSCH**

## Important Safeguards

1. **Read, Follow, and Retain Instructions** - All safety and operating instructions should be read and followed before operating the unit. Retain instructions for future reference.
2. **Heed Warnings** - Adhere to all warnings on the unit and in the operating instructions.
3. **Attachments** - Attachments not recommended by the product manufacturer should not be used, as they may cause hazards.
4. **Installation Cautions** - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only manufacturer-recommended accessories, or those sold with the product. Mount the unit per the manufacturer's instructions. Appliance and cart combination should be moved with care. Quick stops, excessive force, or uneven surfaces may cause the appliance and cart combination to overturn.
5. **Cleaning** - Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. Generally, using a damp cloth for cleaning is sufficient. Do not use liquid cleaners or aerosol cleaners.
6. **Servicing** - Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
7. **Damage Requiring Service** - Unplug the unit from the main AC power source and refer servicing to qualified service personnel under the following conditions:
  - When the power supply cord or plug is damaged.
  - If liquid has been spilled or an object has fallen into the unit.
  - If the unit has been exposed to water and/or inclement weather (rain, snow, etc.).
  - If the unit does not operate normally, when following the operating instructions. Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may result in damage, and require extensive work by a qualified technician to restore the unit to normal operation.
  - If the unit has been dropped or the cabinet damaged.
  - If the unit exhibits a distinct change in performance, this indicates that service is needed.
8. **Replacement Parts** - When replacement parts are required, the service technician should use replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electrical shock or other hazards.
9. **Safety Check** - Upon completion of servicing or repairs to the unit, ask the service technician to perform safety checks to ensure proper operating condition.
10. **Power Sources** - Operate the unit only from the type of power source indicated on the label. If unsure of the type of power supply to use, contact your dealer or local power company.
  - For units intended to operate from battery power, refer to the operating instructions.
  - For units intended to operate with **External Power Supplies**, use only the recommended approved power supplies.
  - For units intended to operate with a limited power source, this power source must comply with EN60950. Substitutions may damage the unit or cause fire or shock.
  - For units intended to operate at 24VAC, normal input voltage is **24VAC**. Voltage applied to the unit's power input should not exceed 30VAC. User-supplied wiring, from the 24VAC supply to unit, must be in compliance with electrical codes (Class 2 power levels). Do not ground the 24VAC supply at the terminals or at the unit's power supply terminals.
11. **Coax Grounding** - If an outside cable system is connected to the unit, ensure that the cable system is grounded. U.S.A. models only - Section 810 of the National Electrical Code, ANSI/NFPA No.70, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
12. **Grounding or Polarization** - This unit may be equipped with a polarized alternating current line plug (a plug with one blade wider than the other). This safety feature allows the plug to fit into the power outlet in only one way. If unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the polarized plug. Alternately, this unit may be equipped with a 3-wire grounding plug (a plug with a third pin, for grounding). This safety feature allows the plug to fit into a grounding power outlet only. If unable to insert the plug into the outlet, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the grounding plug.
13. **Lightning** - For added protection during a lightning storm, or when this unit is left unattended and unused for long periods of time, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

### For Indoor Product

1. **Water and Moisture** - Do not use this unit near water - for example, in a wet basement, in an unprotected outdoor installation or in any area classified as a wet location.
2. **Object and Liquid Entry** - Never push objects of any kind into this unit through openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit.
3. **Power Cord and Power Cord Protection** - For units intended to operate with 230VAC, 50Hz, the input and output power cord must comply with the latest versions of IEC Publication 227 or IEC Publication 245.  
Power supply cords should be routed so they are not likely to be walked on or pinched. Pay particular attention to location of cords and plugs, convenience receptacles, and the point of exit from the appliance.
4. **Overloading** - Do not overload outlets and extension cords; this can result in a risk of fire or electrical shock.

### For Outdoor Product

**Power Lines** - An outdoor system should not be located in the vicinity of overhead power lines, electric lights or power circuits, or where it may contact such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching power lines or circuits, as this contact might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.

### For Rack-mount Product

1. **Ventilation** - This unit should not be placed in a built-in installation or rack, unless proper ventilation is provided, or the manufacturer's instructions have been adhered to. The equipment must not exceed its maximum operating temperature requirements.
2. **Mechanical Loading** - Mounting of the equipment in a rack shall be such that a hazardous condition is not achieved due to uneven mechanical loading.

## Safety Precautions



### CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN!



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



This symbol indicates the presence of uninsulated "dangerous voltage" within the product's enclosure. This may constitute a risk of electric shock.



The user should consult the operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.



Power Disconnect. Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. The power cord is the main power disconnect for all units.

## FCC & ICES INFORMATION

### (U.S.A. and Canadian Models Only)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer, or an experienced radio/TV technician for help.

Intentional or unintentional changes or modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such changes or modifications could void the user's authority to operate the equipment. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: [How to Identify and Resolve Radio-TV Interference Problems](#). This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

## Sécurité

	<b>ATTENTION</b> RISQUE D'ÉLECTROCUTION. NE PAS OUVRIR !	
<b>ATTENTION : POUR ÉVITER TOUT RISQUE D'ÉLECTROCUTION, N'ESSAYEZ PAS DE RETIRER LE CAPOT (OU LE PANNEAU ARRIÈRE). CET APPAREIL NE CONTIENT AUCUN COMPOSANT SUSCEPTIBLE D'ÊTRE RÉPARÉ PAR L'UTILISATEUR. CONFIEZ LA RÉPARATION DE L'APPAREIL À DU PERSONNEL QUALIFIÉ.</b>		
	Ce symbole signale que le produit renferme une « tension potentiellement dangereuse » non isolée susceptible de provoquer une électrocution.	
	Ce symbole invite l'utilisateur à consulter les instructions d'utilisation et d'entretien (dépannage) reprises dans la documentation qui accompagne l'appareil.	
	Attention : l'installation doit exclusivement être réalisée par du personnel qualifié, conformément au code national d'électricité américain (NEC) ou au code d'électricité local en vigueur.	
	Coupe de l'alimentation. Qu'ils soient pourvus ou non d'un commutateur ON/OFF, tous les appareils reçoivent de l'énergie une fois le cordon branché sur la source d'alimentation. Toutefois, l'appareil ne fonctionne réellement que lorsque le commutateur est réglé sur ON. Le débranchement du cordon d'alimentation permet de couper l'alimentation des appareils.	

## Sicherheitshinweise

	<b>VORSICHT</b> ELEKTRISCHE SPANNUNG. NICHT ÖFFNEN!	
<b>VORSICHT: UM EINEN ELEKTRISCHEN SCHLAG ZU VERMEIDEN, IST DIE ABDECKUNG (ODER RÜCKSEITE) NICHT ZU ENTFERNEN. ES BEFINDEN SICH KEINE TEILE IN DIESEM BEREICH, DIE VOM BENUTZER GEWARTET WERDEN KÖNNEN. LASSEN SIE WARTUNGSSARBEITEN NUR VON QUALIFIZIERTEM WARTUNGSPERSONAL AUSFÜHREN.</b>		

	Das Symbol macht auf nicht isolierte „gefährliche Spannung“ im Gehäuse aufmerksam. Dies kann zu einem elektrischen Schlag führen.
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	Der Benutzer sollte sich ausführlich über Anweisungen für die Bedienung und Instandhaltung (Wartung) in den begleitenden Unterlagen informieren.
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	Achtung! Die Installation sollte nur von qualifiziertem Kundendienstpersonal gemäß jeweils zutreffender Elektrovorschriften ausgeführt werden.
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	Unterbrechung des Netzanschlusses. Geräte mit oder ohne Netzschalter haben Spannung am Gerät anliegen, sobald der Netzstecker in die Steckdose gesteckt wird. Das Gerät ist jedoch nur betriebsbereit, wenn der Netzschalter (EIN/AUS) auf EIN steht. Wenn das Netzkabel aus der Steckdose gezogen wird, ist die Spannungszuführung zum Gerät vollkommen unterbrochen.
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## Precauciones de Seguridad

	<b>ATTENZIONE</b> PERICOLO DI SCOSSA ELETTRICA. NON APRIRE.	
<b>PRECAUCIÓN: PARA DISMINUIR EL RIESGO DE DESCARGA ELÉCTRICA, NO RETIRE LA CUBIERTA (NI LA PARTE POSTERIOR). NO EXISTEN PIEZAS DE RECAMBIO EN EL INTERIOR DEL EQUIPO. EL PERSONAL DE SERVICIO CUALIFICADO SE ENCARGA DE REALIZAR LAS REPARACIONES.</b>		

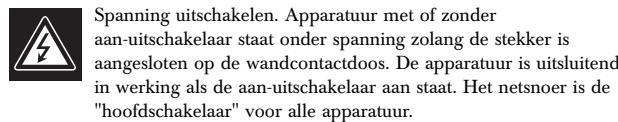
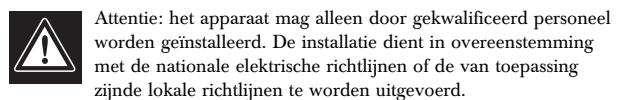
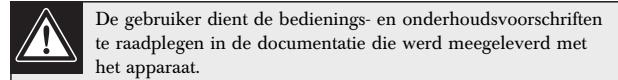
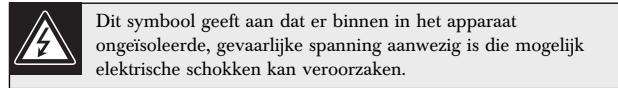
	Este simbolo indica que existen puntos de tensión peligrosos sin aislamiento dentro de la cubierta de la unidad. Estos puntos pueden constituir un riesgo de descarga eléctrica.
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	El usuario debe consultar las instrucciones de funcionamiento y mantenimiento (reparación) en la documentación que se suministra con el aparato.
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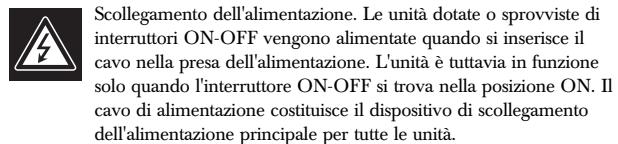
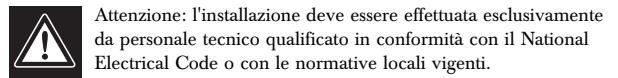
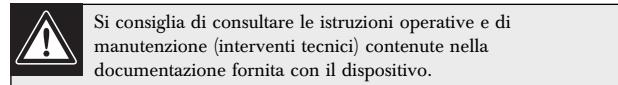
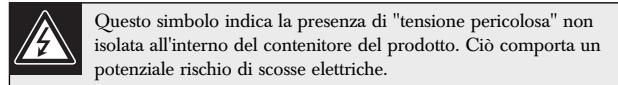
	Atención: la instalación la debe realizar únicamente personal cualificado de conformidad con el National Electric Code o las normas aplicables en su país.
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	Desconexión de la alimentación. Las unidades con o sin interruptores de encendido/apagado reciben alimentación eléctrica siempre que el cable de alimentación esté conectado a la fuente de alimentación. Sin embargo, la unidad sólo funciona cuando el interruptor está en la posición de encendido. El cable de alimentación es la principal fuente de desconexión de todas las unidades.
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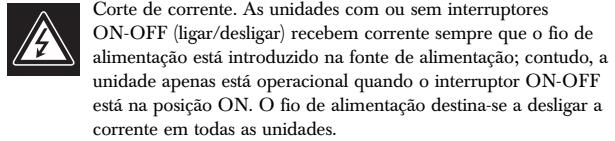
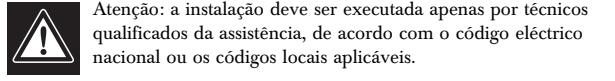
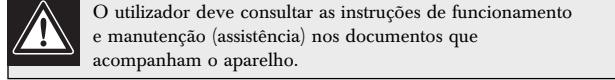
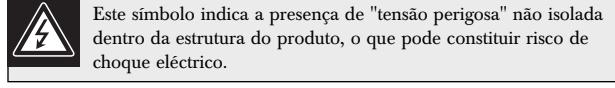
## Veiligheidsmaatregelen



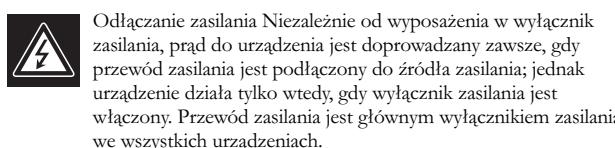
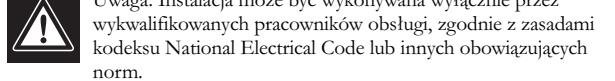
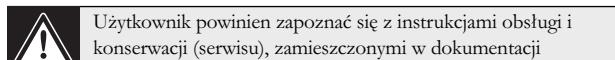
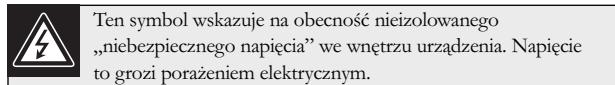
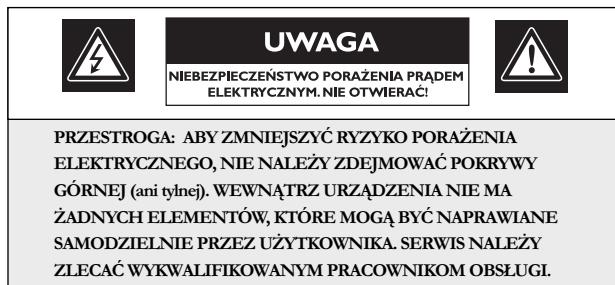
## Sicurezza



## Medidas de Segurança



## Zasady Bezpieczeństwa



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## 1 UNPACKING

Unpack carefully. This is electronic equipment and should be handled carefully.

Check for the following items:

- Verify the model number of the unit.
- One (1) cable assembly with 9-pin D-sub connectors.

If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper. If any items are missing, notify your Bosch Security Systems, Inc. Sales Representative or Customer Service.

The shipping carton is the safest container in which the unit may be transported. Save it for possible future use.

## 2 SERVICE

If the unit ever needs repair service, the customer should contact the nearest Bosch Security Systems, Inc. Service Center for authorization to return and shipping instructions.

### Service Centers

USA: Phone: 800-366-2283 or 717-735-6638  
fax: 800-366-1329 or 717-735-6639

### CCTV Spare Parts

Phone: 800-894-5215 or 408-956-3853 or 3854  
fax: 408-957-3198

e-Mail: [BoschCCTVparts@ca.slr.com](mailto:BoschCCTVparts@ca.slr.com)

Canada: 514-738-2434

Europe, Middle East & Asia Pacific Region:  
32-1-440-0711

For additional information, see  
[www.boschsecuritysystems.com](http://www.boschsecuritysystems.com).

**WARNING: Electrostatic-sensitive device. Use proper CMOS/MOSFET handling precautions to avoid electrostatic discharge.**



NOTE: Grounded wrist straps must be worn and proper ESD safety precautions observed when handling the electrostatic-sensitive printed circuit boards.

## 3 DESCRIPTION

This publication provides instructions for installing the LTC 8712 Series Console Port Expanders and the Allegiant® LTC 8x00 Series system with multiple external computing devices.

The LTC 8712 Series Console Port Expanders expand the Allegiant LTC 8600, LTC 8800, and LTC 8900 Series system's console port to permit up to four external computing devices to communicate with the Allegiant system via RS-232 protocol. Any computing device which can normally communicate directly with an Allegiant system via its RS-232 console port can be used with the LTC 8712 Series Console Port Expanders. The external devices can consist of PCs running the Allegiant system's Master Control Software package, the LTC 8850/00 Security Systems Graphical User Interface (GUI), access control systems, or other devices utilizing the Allegiant system's Command Console Language (CCL).

When the LTC 8712 Series is used with the LTC 8850/00 GUI software, it may also be connected to the Allegiant's printer port if the port is configured to operate in the console mode. Refer to the LTC 8850/00 User's Manual for configuration details. The cable supplied with the LTC 8712 Series Console Port Expanders must be used to connect the "SYSTEM" port on the LTC 8712 Series to the "CONSOLE" port on the Allegiant series system. See Typical LTC 8712 Series Console Port Expander Application.

## 4 INSTALLATION

### 4.1 Power

Model No. <sup>1</sup>	Rated Voltage	Voltage Range	Nominal Power <sup>2</sup>
LTC 8712/60	120 VAC, 50/60 Hz	105 to 130	10 W
LTC 8712/50	220-240 VAC, 50/60 Hz	198 to 264	10 W

<sup>1</sup>The model number and operating voltage are shown on the bottom of the unit. These units are supplied with grounded power cords; grounding must not be defeated.

<sup>2</sup>At rated voltage.

## 4.2 Mounting

These units are supplied as desk top units. For rack mounting, the LTC 9101/00 rack-mount kit is available. These units are half-rack units.

## 4.3 Cover Removal



**WARNING:** Removal of the cover should only be performed by qualified service personnel—not user serviceable. The unit should always be unplugged, before removing the cover and remain unplugged while the cover is removed.

The top cover is fastened to the case by two screws located on the bottom rear of the unit. Once the screws have been removed, the cover slides back and off the unit. See Top Cover Removal.

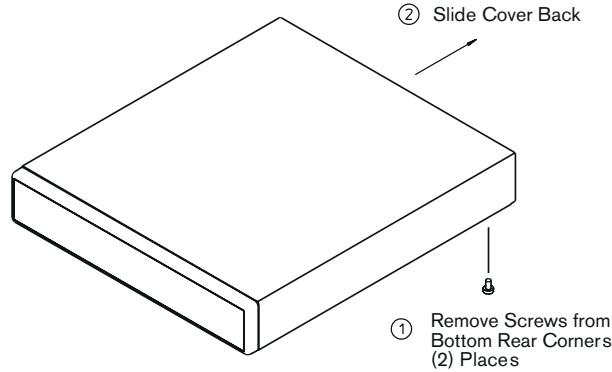


Figure 1 Top Cover Removal

## 4.4 DIP Switch Settings

The LTC 8712 Series Console Port Expanders communicate with the Allegiant series main bay and the external computing devices via RS-232 communications. The LTC 8712 Series Console Port Expanders contain internal DIP switches which can be used to set the communication parameters. The cover must be removed if the DIP switches need to be changed from their factory default settings. See Cover Removal. The DIP Switch Table summarizes the DIP switch settings and their associated features. Note that after changing any of the DIP switch settings, the AC power must be turned off and on before the changes can take effect.

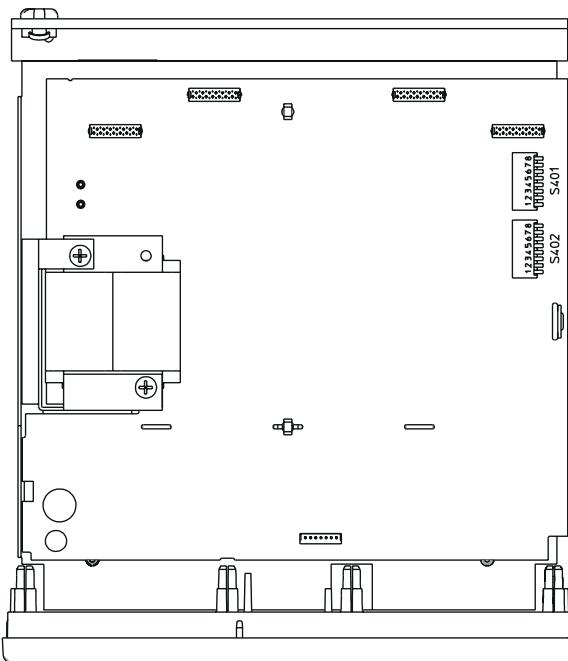


Figure 2 Location of DIP Switches

## 4.5 Connections

1. Make sure power is turned OFF on the Allegiant series main bay and the LTC 8712 Series Console Port Expanders.
2. Using either a user-supplied cable or the cable supplied with an Allegiant series software package, connect one end of the cable to "PORT 1" on the rear of LTC 8712 Series Console Port Expanders. Connect the other end of the cable to the RS-232 serial port of the external computing device. See ILLUSTRATIONS for pin-out information.
3. Similarly, repeat step 2 for each external computing device to be connected to the LTC 8712 Series Console Port Expanders.
4. Using the cable supplied with the LTC 8712 Series Console Port Expanders, connect the end of the cable marked "SERIAL PORT" to the connector marked "SYSTEM" on the LTC 8712 Series. Connect the end of the cable marked CONSOLE to the connector marked "CONSOLE" on the Allegiant series system.

## 4.6 Allegiant System Setup

- Verify that the LTC 8600 or LTC 8800 Series Allegiant CPU contains software version 6.5 or higher. If not, arrangements must be made to upgrade it.
- The Allegiant system's CPU module must be configured to operate with the LTC 8712 Series Console Port Expanders. When using the LTC 8850/00 GUI software, the LTC 8712 Series can be connected to either the Allegiant's console or the printer port. The appropriate options are selected in the Allegiant Server's tables, then downloaded into the Allegiant. Refer to the LTC 8850/00 Users Manual for exact configuration details. If connecting to other devices, the Allegiant's console port can be configured to operate with the LTC 8712 Series by setting DIP switches located on the Allegiant system's CPU module. Configure the Allegiant system's CPU DIP switches according to the following:

### CPU DIP S100, Switch 3

This switch must be set to ON whenever a LTC 8712 Series Console Port Expander is connected to the Allegiant system's console Port.

### CPU DIP S100, Switch 4

This switch is used to set the RS-232 baud rate that the Allegiant will use to communicate with a LTC 8712 Series Console Port Expander. It is only applicable when S100 DIP switch 3 is in the ON position. When S100 switch 4 is ON, the baud rate will be 57,600 bps (recommended setting). When OFF, the baud rate follows the setting determined via switch 8 of CPU DIP switch S101. If S101 DIP switch 8 is OFF, the baud rate is defaulted to 19,200 bps. If S101 DIP switch 8 is ON, the user programmed baud setting must be set to 19,200 bps.

Remember to reset the Allegiant system after changing any of its DIP switch settings either via User Keyboard function 15 or by cycling the AC power Off and On.

## 4.7 DIP Switch Table

S402 DIP Switch: These settings must match those on the external computing devices.

Switch Number	Function	
1	2	Baud Rate
Off	Off	1200
Off	On	9600
On	Off	19200 (Factory Default Setting)
On	On	38400
3	Handshaking	
Off	Disable (Factory Default Setting)	
On	Enable	
4	Stop Bits	
Off	1 (Factory Default Setting)	
On	2	
5	6	Parity
Off	Off	None (Factory Default Setting)
Off	On	Even
On	Off	Odd
On	On	Reserved
7	Data Bits	
Off	8 (Factory Default Setting)	
On	7	
8	Reserved (Must be Off)	

S401 DIP Switch: These settings must match those on the Allegiant series main bay.

Switch Number	Function
1	Baud Rate
Off	19200
On	57600 (Factory Default Setting)
2	Handshaking
Off	Disable
On	Enable (Factory Default Setting)
3 thru 8	Reserved (Must be Off)

## 5 OPERATION

- Turn on the Allegiant series main bay and the LTC 8712 Series Console Port Expander. The power LED on the LTC 8712 Series unit should be on.
- Note that SYSTEM Tx LEDs on the front panel of the LTC 8712 Series indicate whenever data is being sent to the Allegiant series unit from the LTC 8712 Series. The system Rx LEDs indicate whenever data is being received from the Allegiant series unit. Similarly, the front panel CONSOLE Rx and Tx LEDs indicate activity on those channels.

## 6 ILLUSTRATIONS

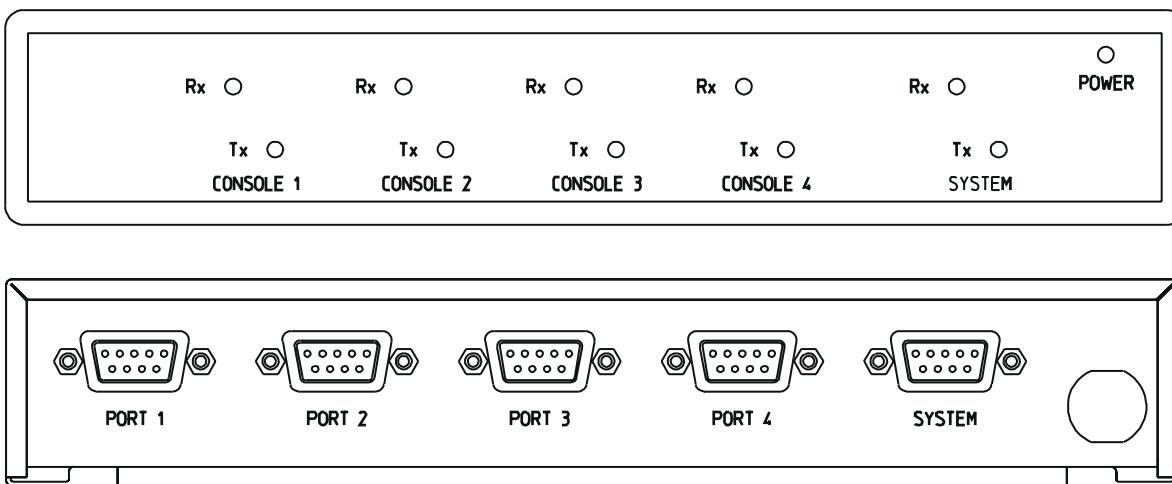
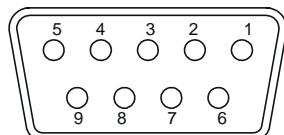
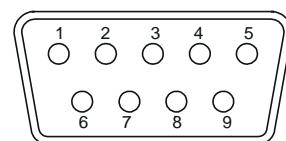


Figure 3 LTC 8712 Series - Front and Back Panels

Ports 1 through 4 - Female 9-Pin D-Sub Connector



System Port - Male 9-pin D-Sub Connector



Pin	Function
1	NC (No Connection)
2	Rx (Receive)
3	Tx (Transmit)
4	CTS
5	RTS
6	NC (No Connection)
7	Data Ground
8	NC (No Connection)
9	NC (No Connection)

Pin	Function
1	NC (No Connection)
2	Rx (Receive)
3	Tx (Transmit)
4	NC (No Connection)
5	Data Ground
6	NC (No Connection)
7	RTS
8	CTS NC
9	NC (No Connection)

Allegiant Series CONSOLE Port Cable (P/N 303-0753-003)

Supplied with LTC 8712 Series Console Port Expanders and Allegiant series software packages

9-Pin Male	Function	Typ Wire Color	9-Pin Female	Function
1	NC (No Connection)	---	---	---
2	Rx (Receive)	Red	3	Tx (Transmit)
3	Tx (Transmit)	Brown	2	Rx (Receive)
4	CTS	White	1, 7	DCD, RTS
5	RTS	Green	8	DTR
6	NC (No Connection)	---	---	---
7	Data Ground	Blue	5	Data Ground
8	NC (No Connection)	---	---	---
9	NC (No Connection)	---	---	---

(Jumper: pins 4 and 6)

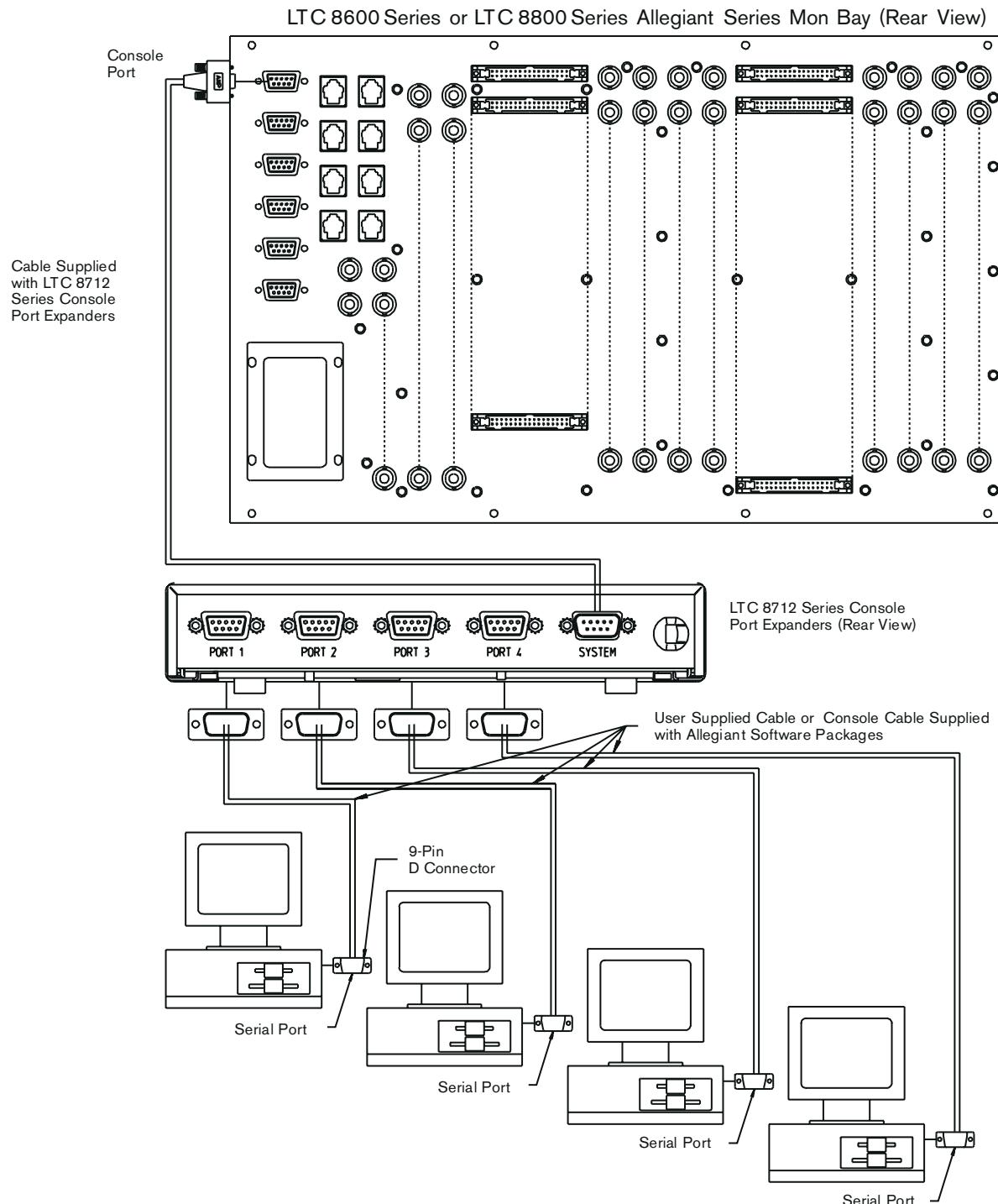


Figure 4 Typical LTC 8712 Series Console Port Expander Application

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